

**Remarks:**

Claims 1-2, 6-7, and 11-19 are pending after entry of the amendments set forth herein.

Claims 1, 2, 6, 7, 12 and 14 have been amended, where support is found on page 13, lines 5-14.

Generally, the invention is directed to an analog to digital converter configured with comparators that can be selectively enabled in a successive approximation manner to produce a digital signal within a region that is linear. As described on page 13, Lines 5-14 (Figure 3) of the application:

"The combined effect of allowing currents from both current source  $S_6$  and current source  $S_5$  to flow is that the output of the converter 300 is zero only when the difference in the output currents from the comparator  $C_6$  is equal and opposite to the difference in the output currents from the comparator  $C_5$ . Within a narrow region, the outputs of a comparator  $C_5$  or  $C_6$  are linearly related to the inputs thereto. For this reason, in order for the output of the converter 300 to be zero, it is also necessary for the difference between the input signal  $V_{in}$  and the voltage reference signal to which comparator  $C_5$  compares the input signal  $V_{in}$  to be equal and opposite to the difference between the input signal  $V_{in}$  and the voltage reference signal to which comparator  $C_5$  compares the input signal  $V_{in}$ ."

Thus, the invention provides a means to enable and disable comparators at points in the signal where there is linearity, providing an output signal having a region of linearity. Thus, a substantially linear output signal is possible. Claims 1, 2, 6, 7, 12 and 14 have been amended accordingly, as they have support in this excerpt of the application as filed and add no new matter. All other pending claims depend from at least one of these claims, and, therefore, are limited as well.


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Applicants submit that all of the claims as amended are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any additional fees due or credit any overpayment to Deposit Account No. 50-2421.

Sincerely,

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